

Amendments to the Claims:

Please cancel claims 1 - 15 without prejudice or disclaimer of the subject matter thereof and add the following new claims.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 15 (canceled)

16. (new) A plasma processing apparatus for processing a sample placed on a sample stage disposed inside a processing chamber using a plasma generated therein, comprising:

a plate facing said plasma which is disposed at an upper side with respect to said sample stage and opposing to a sample loading surface of said sample stage, wherein said plate is coupled to an electric power source which is substantially only one source of an electric field for generating the plasma applied from the upper side of said sample which is disposed inside of said processing chamber;

a power source for supplying a radio frequency power to said sample stage; and

a dielectric ring member disposed at least between a periphery of said plate and a side wall of said processing chamber and facing said plasma, wherein said dielectric ring member covers at least an outer edge surface of said plate and is contiguous with said side wall and is between said plate and said side wall;

wherein a gas is introduced inside said processing chamber from the upper side of the sample and said processing chamber is evacuated by an evacuation system which is disposed below said sample stage.

17. (new) A plasma processing apparatus according to claim 16, wherein said dielectric ring member forms at least a portion of a ceiling of said processing chamber between said plate and said sidewall.

18. (new) A plasma processing apparatus according to claim 16, further comprising:

a bias power which is supplied to said plate.

19. (new) A plasma processing apparatus according to claim 16, wherein an inner diameter of said dielectric ring member is larger than a diameter of said sample.

20. (new) A plasma processing apparatus according to claim 16, wherein a surface of said dielectric ring member facing the plasma is nearer to said sample than a surface of said plate which faces the plasma.

21. (new) A plasma processing apparatus according to claim 16, wherein an inner diameter of said dielectric ring member is larger than a diameter of said sample, and a surface of said dielectric ring member which faces the plasma is nearer to said sample surface of said plate which faces the plasma.

22. (new) A plasma processing apparatus for processing a sample disposed inside a processing chamber, comprising:

a sample stage disposed inside of and at lower portion of said processing chamber on which said sample to be processed is placed on a sample loading surface thereof;

a power source for supplying electric power to said sample stage;

a plate disposed at an upper side with respect to said sample stage and which faces said sample loading surface, wherein the plate is coupled to an electric power source which is substantially only one source of an electric field for generating a plasma applied from the upper side of said sample which is disposed inside of said processing chamber;

a plasma generating space disposed between said plate and said sample stage in which the plasma for processing said sample is generated;

a gas introducing hole disposed at upper side of said plasma generating space through which the gas is introduced inside said processing chamber;

an evacuating system which evacuates the inside of said processing chamber which is below said sample stage; and

a dielectric ring member disposed at least between a periphery of said plate and a side wall of said processing diameter and which faces said plasma, wherein said dielectric ring member covers an outer edge surface of the plate and is contiguous with said side wall.

23. (new) A plasma processing apparatus according to claim 22, wherein said dielectric ring member forms at least a portion of a ceiling of said processing chamber between said plate and said sidewall.

24. (new) A plasma processing apparatus according to claim 22, further comprising:

a bias power which is supplied to said plate.

25. (new) A plasma processing apparatus according to claim 22, wherein an inner diameter of said dielectric ring member is larger than a diameter of said sample.

26. (new) A plasma processing apparatus according to claim 22, wherein a surface of said dielectric ring member facing the plasma is nearer to said sample than a surface of said plate which faces the plasma.

27. (new) A plasma processing apparatus according to claim 22, wherein an inner diameter of said dielectric ring member is larger than a diameter of said sample, and a surface of said dielectric ring member which faces the plasma is nearer to said sample surface of said plate which faces the plasma.

28. (new) A plasma processing apparatus for processing a sample placed on a sample stage disposed inside a processing chamber using a plasma generated therein, comprising:

a plate facing said plasma which is disposed at an upper side with respect to said sample stage and opposing to a sample loading surface of said sample stage, wherein said plate is coupled to an electric power source which is substantially only

one source of an electric field for generating plasma applied from the upper side of said sample inside of said processing chamber;

a power source for supplying a radio frequency power to said sample stage;
and

a dielectric ring member disposed at least between a periphery of said plate and a side wall of said processing chamber, wherein said dielectric ring member has a substantially flat surface facing the plasma, said dielectric ring member being contiguous with said side wall and forming at least a portion of a ceiling of said processing chamber between said plate and said side wall;

wherein a gas is introduced inside said processing chamber from the upper side of the sample and said processing chamber is evacuated by an evacuation system which is disposed below said sample stage.

29. (new) A plasma processing apparatus according to claim 28, further comprising:

a bias power which is supplied to said plate.

30. (new) A plasma processing apparatus according to claim 28, wherein an inner diameter of said dielectric ring member is larger than a diameter of said sample.

31. (new) A plasma processing apparatus according to claim 28, wherein a surface of said dielectric ring member facing the plasma is nearer to said sample than a surface of said plate which faces the plasma.

32. (new) A plasma processing apparatus according to claim 28, wherein an inner diameter of said dielectric ring member is larger than a diameter of said sample, and a surface of said dielectric ring member which faces the plasma is nearer to said sample than a surface of said plate which faces the plasma.

33. (new) A plasma processing apparatus according to claim 28, wherein said dielectric ring member covers at least an outer edge surface of said plate and is contiguous with said side wall, and a surface of said dielectric ring member which faces the plasma is nearer to said sample than a surface of said plate which faces plasma.

34. (new) A plasma processing apparatus according to claim 28, wherein said dielectric ring member has an inner diameter larger than a diameter of said sample and covers at least an outer edge surface of said plate and is contiguous with said side wall, and a surface of said dielectric ring member which faces the plasma is nearer to said sample than a surface of said plate which faces the plasma.